DOCUMENT RESUME

ED 333 313 CG 023 469

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TITLE The Intrinsic Value of Work in a Changing Global Environment.
PUB DATE 7 Jun 91
NOTE 20p.; Paper presented at the Annual Convention of the International Council of Psychologists (48th, Tokyo, Japan, July 14-18, 1990).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adjustment (to Environment); Disabilities; *Dislocated Workers; *Employment; Foreign Countries; Job Layoff; Role Perception; Sex Differences; Social Life; *Values
IDENTIFIERS Canada

ABSTRACT

Although work continues to play a significant role in the lives of most men and an increasing number of women that role is changing. This study examined the intrinsic value of work. The 53 subjects for this study were drawn from a review of 160 files for clients who were referred to the Occupational Performance Analysis Unit at the University of Alberta (Canada). All clients completed the Life Roles Inventory and participated in a structured interview, the Life Situation Questionnaire. Measures of physical capacity, perceived exertion, and functional ability were also undertaken. A change in physical status was found to result in reduced income, a shift in level of employment, or unemployment. Income derived from an individual's own efforts was important to a client's sense of personal contribution, identity and status. The greater the occupational shift, the lower the level of satisfaction with employment, financial situation, and general health, and the less participation in social leisure pursuits. Working role was related to the difference in social pursuits for females, as it likely provided opportunities for interaction with peers, membership in organizations, and social relationships. A significantly higher proportion of females indicated that their circle of friends had changed since their injury than did males. Females who had not indicated a change in their circle of friends were more satisfied with their social life than those who reported such changes. (LLL)

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THE INTRINSIC VALUE OF WORK IN A CHANGING GLOBAL ENVIRONMENT

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Abstract

Technology has speeded up communication and opened international marketing opportunities, but the outlook for the global economy is not universally bright. Unemployment rates are increasing not only in the unskilled and semi-skilled sectors but also in such areas as middle management, making it necessary for many individuals to change not only the source of employment but also the nature of that employment. Although work continues to play a significant role in the lives of most men and an increasing number of women, that role is changing. Both the type of opportunities that are available and the values that individuals seek to implement through the working role have altered over the past decade. Considerable attention has been paid to the extrinsic value of work. However, the intrinsic elements may be of equal or greater importance. Studies of values and role salience in individuals who were forced to change their type of work or were no longer able to work as a result of injury, support this premise. In this paper, the intrinsic value of work is examined in light of findings from the authors' current research.

Acknowledgements: The assistance of Dr. George Fitzsimmons and Dr. Donald Macnab, Psychometrics Canada, for their contribution to design and data analysis in the development of this project is gratefully acknowledged, as is the editorial assistance of Ms. Carol Chandler.

This paper is based upon a presentation given at the International Council of Psychologists in Tokyo, Japan, July 1990.

The Intrinsic Value of Work 1
in a Changing Global Environment

Job loss is considered to be a major life event and "studies indicate that job loss places [individuals] at increased risk of poor mental health in terms of increased depression, anxiety, minor psychiatric morbidity, and decreased self-esteem and life satisfaction" (Caplan, Vinokur, Price, & van Ryn, 1989, p.759).

In studies of job satisfaction, attention has previously been paid to intrinsic and extrinsic characteristics. Extrinsic elements focus on external events such as working conditions, company policy, financial return, and job security. While intrinsic elements deal with factors within the job itself, opportunities to use ones' abilities, act autonomously, feel a sense of accomplishment, develop personally, or have variety within the job (Voydanoff, 1988). Katzell and Thompson (1990), suggest that "designing work so that it is maximally self-reinforcing and intrinsically rewarding is not inconsistent" (p.149) with performance rewards, and is certainly the way in which organizations are heading.

Theories of motivation have used similar constructs (Herzberg, 1966) with inconsistent empirical support. However, Kuhnert's (1989) findings indicate that the intrinsic versus extrinsic model of work rewards was viable in explaining similarities and differences between the employed and unemployed. He went on to state that "more than financial loss is suffered when jobs are lost involuntarily, and we can fully understand the debilitating effects of unemployment only when we recognize the full scope of reasons why people work" (p.417).

Kuhnert's findings are consistent with what injured clients have reported to us during assessments for insurance settlement or litigation purposes. However, other questions also arise for this group, e.g., what opportunity will there be for such clients in a changing work environment and an increasingly global economic scene? We do not pretend to know all the answers, or to be able to introduce all of the elements in this short presentation, but rather to briefly review three major areas:

1. What trends are likely to influence employment prospects in the 1990s and beyond?
2. What organizational changes are likely to effect employment prospects over this period?
3. How do our research findings and what clients have told us relate to these trends?

Trends Likely to Influence Employment Prospects

The outlook for the global economy is not universally bright. Fortune's (1989) economic projections for 1989/90 suggested that global expansion is starting to ease, and all economies can expect slower growth rates. (The one exception is Indonesia). Trade patterns are shifting and increased export activity can be expected for Hong Kong, Singapore, South Korea and Taiwan or as Fortune's staff writers like to call this group: Asia's Little Dragons. It is these nations that are expected to cut into the North American market share in 1990s.

Unemployment is expected to rise to varying degrees in all sectors. Overall unemployment rates in Europe are expected to remain in the region of 9% (Richman, 1990). In West Germany over the next decade the number of new job seekers who are under 25 years of age will decrease by 3.6%, and by about 2% in Great Britain, France and Japan, while the United States will experience the slowest growth rate in this area since the 1930s - under 1%.

While the work force in Europe and Japan is expected to contract; in Japan the number of elderly people in the population is growing at nearly twice the rate of West Germany and six times the rate of the United States. "America's fastest growing age segment is currently 85 year olds, who make up 1.2% of the population" (Naisbitt, 1989 p.28). By 2030, those over 65 years of age are likely to account for 22% of the population in the seven biggest Western economies. Richman (1989)

cautions that "... Unless the trend toward earlier retirement is reversed, many folks will spend more years as retirees than as workers" (p.71).

Immigration from third world countries into the developed nations will increase substantially and begin to negatively effect prospects for their unskilled residents. In the United States the gap between the skills potential employees bring to the workplace and work requirements is rising. It is estimated that the number of jobs requiring the equivalent of a college degree will rise from 22% to 30% of the total by the year 2000, just as college enrolments are declining in some sectors, e.g., Blacks and Hispanics.

In summary:

* There will be fewer first time workers entering the workforce by the year 2000 which will impact on the level of productivity (Offerman & Gowing, 1990).
* Trade patterns are shifting and increased export activity will cut into the North American market share (Fortune, 1989).
* Unemployment is expected to rise in all sectors to varying degrees (Richman, 1990).
* Early retirement patterns are expected to continue (Offerman & Gowing, 1990).
* Immigration from third world countries is expected to cut into employment opportunities in the unskilled worker category in North America (Richman, 1990).
* Higher educational requirements will be required for workers to manage technology change (Offerman & Gowing, 1990).

Organizational Changes

Sandroff (1990) stressed that it will not be business as usual in the North American labour market. Businesses will have to spend more time hiring; those that traditionally hire a lot of young workers (restaurants, hotels, banks, insurance companies) will find it increasingly harder to find them, and college graduates will

also be in short supply. Naisbitt (1990) indicates that temporary workers will comprise an expanding share of the workforce and by the year 2000 this group is expected to comprise 80% of the overall workforce in the United States.

The demand for good employees will not be limited to entry level positions as smaller enterprises lure away good employees with prospects of greater flexibility and faster advancement. A more diverse group of applicants will be considered, women, older workers, people with disabilities; it is economic, as opposed to legislative pressure, that will begin to reduce discrimination in the work place.

Technological developments have made it possible to work from the home but attitudes have not caught up with electronic developments in many places. For example, neighbours (and frequently co-workers) tend to view university professors who do so as having a day off, while family members likely have greater difficulty separating parent/homemaker roles from that of the working role. However, the home based worker can tailor the working environment and work pace to suit their level of endurance and physical capacity. While Oborne (1991) also indicated that productivity levels are equal to or greater for home based workers than office based personnel.

As jobs demand greater levels of skill, the impact will be felt at entry level and also in retraining programs. Naisbitt (1990) suggests that closer ties will be established between educational institutions, governments and industry during the next decade.

The model of work in the 1990s is changing in Canada; "sociotechnical systems (STS)" will place a different face on the work place. Kolodny (1989) suggested that the STS work place would differ in the following ways: for individuals multi-skilling would become the norm, thus increasing job flexibility and enabling them to adapt to change more quickly. Teams of workers with complimentary skills, including the administrative and managerial aspects would be used. Teams would

therefore have the capacity to be self-regulating and the roles supervisors and middle managers would be negatively affected; it is here that 'downsizing' will take place. Skill based pay systems will also be introduced which pay individuals for what they know, rather than what they do or their length of job tenure.

The changes that Kolodny (1989) described in the Canadian context focused primarily on the intrinsic aspects of working roles. In the Unites States a "service management" concept embodying some of these elements has also been suggested (Offerman & Gowing, 1990). In an international context, Richman (1990) suggests that common demographic problems will eventually force the United States, Japan and Western Europe to deal with four primary issues: How to expand their domestic work force, encourage immigration, boost productivity and re-think public policy in health care and pensions.

Mann (1990) cautions that further development in the service industries will not lead to greater economic prosperity: "You will have to manufacture things to survive [he advocates]. You will have to compete against other people doing the same thing [and] right now Americans are not doing enough of either"(p.56). Mann suggests that job prospects in the manufacturing area will increase "... we are going to have to make things to survive"(p.58). He advises that "what is needed is a generation of experts in the practical application of technology"(p.61).

In summary

* In North America more time will be spent recruiting employees at all levels and the demand for competent employees is expected to continue (Sandroff, 1990).
* Smaller enterprises are likely to lure good employees from larger corporations by appealing to some of the intrinsic aspects of job satisfaction.
* A more diverse group of applicants will be considered (Sandroff, 1990).
* Economic imperatives are likely to reduce discrimination in the work force.
* Joint career management will become increasingly important as the number of women in the work force increases (Offeramn & Gowing, 1990).

* Growth in the service sector has not been accommodated by similar growth levels in productivity in North America (Offerman & Gowing, 1990).
* An increasing need for experts in the practical application of technology is expected (Mann, 1990).
* Corporate mergers and 'downsizing' have further reduced employment opportunities (Offerman & Gowing, 1990) particularly at the middle management level.
* Developments in communication technology continue to make it possible for increasing numbers of employees to work out of their homes.

Implications and Research Findings

It is worth looking at the issue of the intrinsic value of work from two other perspectives: 1) What retirees seek, 2) What our research indicates regarding those who were forced to change their type of work or were no longer able to work as a result of injury.

When individuals talk about retirement it is often in terms of what they want to do, activities that provide personal satisfaction, bring enjoyment, enhance their quality of like, allow greater flexibility and choice, and enable the individual to maintain control of the decision making. In an effort to dissuade workers form taking early retirement in the future greater attention will be paid to the intrinsic aspects of the job. There will be an increasing need for older workers to stay on the job longer and issues of values, motivation and attitudes to work will become increasingly critical. Offerman & Gowing (1990) suggest that:

> *The challenge for management is to institute a new organizational culture that reflects shared values, regardless of previous organizational affiliation or geographic location. (p.99)*

Individuals with disabilities will also benefit from these new work environments. In our research with those who have been forced to change or cease work due to

injury or illness, intrinsic elements were also found to be important. A short summary of that work follows.

Subjects

The sample (N=53) was drawn from a review of 160 files for clients who were referred to the Occupational Performance Analysis Unit (OPAU) at the University of Alberta. All clients were settling insurance claims or were in litigation. To be eligible for inclusion in this study files had to be complete and the client had to have sustained an orthopaedic or soft tissue injury to the upper limbs/upper spine or the lower limbs/lower spine. Those with neurological deficits, cardio-respiratory problems and sensory deficits were excluded. Table 1 displays the demographic data for the 27 female and 26 male subjects. It will be noted that the male subgroup included four students; three were adults and one was a high school student, all were working on a part-time basis at the time of the injury.

Instruments

All clients completed the Life Roles Inventory (LRI) (Fitzsimmons, Macnab & Casserly, 1996) and participated in a structured interview the Life Situation Questionnaire (LSQ) (Brintnell, 1985). Measures of physical capacity, perceived exertion and functional ability were also undertaken.

The LRI was used to measure the importance of values and role salience. The Values Scale consists of twenty values for which the respondent indicates a degree of importance. Coefficient alpha internal consistency reliabilities computed for each of the value scales ranged from 0.72-0.86 with median of 0.80. The second part, the Salience Scales, attempts to measure behavioral and affective components of five major life roles: Studying, Working, Community Service, Home/Family and Leisure. Internal consistency coefficients for participation ranged from 0.85-0.95, for commitment, 0.89-0.95, and role value implementation, 0.87-0.90. Reliability data

were derived form 6382 English and French speaking adults collected across Canada (for equivalent US data see Super, D. & Nevill, D. 1984). The LSQ (Research Version) was developed to record the history of employment, education, injury and client's perceptions of the impact of that injury upon their lifestyle. Based upon a biopsychosocial frame of reference, the LSQ is administered as a structured interview with the interviewer recording and/or coding responses primarily on Likert-type scales. As part of that process, physical capacity was evaluated, along with perceived levels of pain on activity and frequently an evaluation of the previous work site and work demands.

Data Analysis

Data analysis included the calculation of frequencies , correlations, ANOVAs, t-tests, χ^2 and Z-tests. Since this is an exploratory study, the researchers chose an overall level of significance of $p<0.05$, and two tailed test were used throughout. In this discussion, where significance was achieved, absolute probabilities will be reported so that readers can make their own decisions as to the meaningfulness of the reported results.

Results and Discussion

Findings will be presented and discussed under the following headings: 1. Response to job loss (based upon analysis of the LSQ data), 2. Values, 3. Working Role, 4. Leisure Role (based upon analysis of LRI findings and LSQ data).

1. Response to Job Loss

In relation to the literature that was previously reviewed concerning job loss, what were the losses that these clients reported? A change in physical status resulted in reduced income, a shift in level of employment, or unemployment. A significant difference ($p<.000$) was found for satisfaction with finances between those who were employed ($\overline{X}=3.10$) and those who were not employed ($\overline{X}=1.18$). No significant

gender differences were found. Financial issues were of concern at all occupational levels, but particularly to the 13/27 females who now had to rely on a spouses income after contributing to family finances themselves. Income derived from an individuals own efforts was important to a client's sense of personal contribution, identity and status. Disability pensions only fill financial needs.

The difference on overall satisfaction with general health for those who were currently employed ($\overline{X}$ =2.58) and those who were not employed ($\overline{X}$ =1.92) approached, but did not reach, significance (p=0.087). No significant gender differences were found. The small sample size no doubt contributed to this result.

However, when asked to rate their level of general health these clients indicated that their situations could be worse. Comments such as "Well, I'm not paralysed" or "At least I don't have cancer," often preceded their ratings. On the basis of the general health rating alone it would be easy, but incorrect, to dismiss this group as not being particularly effected by their injuries.

Loss of physical capacity, strain in personal relationships, and a decrease in active leisure pursuits were also reported.

Clients in these situations want to continue to work and are likely to do so with levels of pain on activity that are at moderate or severe levels. A significant change in job level appears to be equally difficult for clients to handle following injury as indicated in the following sections.

2. Values

Mean scores on the LRI were calculated for males and females in this sample and Z tests were used to compare these scores to the published norms for English speaking males and females (see Table 2). Males in this sample were compared to those in the normative sample in terms of their level of value endorsement and were significantly higher on Physical Activity ($p<0.05$), Social Relationships and Physical

Prowess ($p<0.01$). While females were significantly higher on Economics, Physical Activity, Risk ($p=0.05$) and Physical Prowess ($p=<0.01$), but significantly lower on Creativity ($p<0.05$). These findings support the issues raised in the previous section related to the effects of job loss.

3. Working Role

An examination of Table 1 shows that all subjects, with the exception of the four male students, were employed on a full-time basis prior to injury. A 3-way χ^2 test showed an overall dependence ($p<.001$) between gender and occupation before and after injury. Partitioning the χ^2 revealed a significant dependency between gender and occupation before injury ($p=.047$) and a dependency between gender and occupation after injury which approached significance ($p=.076$). As was expected, a significant dependency between occupation before injury and occupation after injury existed ($p<.001$) with a downward shift in occupational category for both males and females following injury.

In order to investigate this occupational shift, a two-way ANOVA with one measure repeated was performed which treated gender as one independent variable and occupation (before injury/after injury) as the repeated measure. In this instance the authors feel that a strong case can be made for treating employment as an interval type scale as long as the "student" category is removed since someone could be a student and share any category. Categories were assigned the following weights: professional=5, skilled=4, clerical=3, unskilled=2, unemployed=1. Occupational level therefore became the dependent variable in the analysis.

No significant difference was found for occupational level between the genders. However, there was a significant difference ($p<.001$) on the repeated measure of occupational level before and after injury, both groups being significantly higher before injury. Although the mean level of employment fell more for females than for males it did not reach significance.

It is important to look at the extent of the occupational shift that took place for clients in this sample. There was a significant relationship between the level of occupation before injury and the current occupational level (p=.004) but no gender differences were apparent. Of the 28 clients who were employed after injury (exempting the four students who were still students after their injuries), 20 were employed at their previous level, while 8 were employed at lower levels and none were employed at higher levels. The greater the level of dependency in self-care, the greater the occupational shift. This was significant for males (p=.044) and suggests that the impact of injury was higher for males than females; more males sustained injuries to lower limbs and/or lower spine in this sample.

The greater the occupational shift, the lower the level of satisfaction with employment (males p=.005, females p=.024), financial situation (females p=.004) and general health (females p=.031) and the less participation in social leisure pursuits (females p=.017). While lower levels of occupational shift were significantly associated with recommendations for retraining (males p=.047). The lack of significance for females, in this sample, is likely related to the smaller number of females that were recommended for retraining and subsequently the higher number who were unemployed following injury.

4. Leisure Role

The majority of these clients reported a considerable change in the type of leisure activities they were able to pursue following injury. Clients were asked to report either an increase, decrease, or no change in active, sedentary or social pursuits. Forty three reported a decrease in their active leisure pursuits.

Females who reported higher levels of participation in the Working role on the LRI Salience Scales also reported less change in membership in organizations (R_{xy}=.62, p=<.001). The Working role was related to the difference in social pursuits for females in this sample as it likely provided opportunities for interaction with peers,

membership in organizations and social relationships. A significantly higher proportion (χ^2, p=0.02) of females (19/27) indicated that their circle of friends had changed since their injury than did males (9/26). Females who had not indicated a change in their circle of friends were more satisfied with their social life than those who reported such changes (R_{xy}=.52,p=<.01).

Summary and Conclusions

We would agree with Kuhnert (1989) that more than financial loss is suffered when jobs are lost, but when occupational shifts occur as a result of injury or illness, these losses are compounded. Social networks are likely to be disrupted for those in skilled or professional categories; source of income is important and that connected with personal investment and effort appears to be more highly valued than income received as a result of disability. When physical capacity is compromised females encounter frustration in completing both working and home/family roles. With competencies lowered in both roles personal identity may be questioned and the level of self-esteem is likely to be negatively effected.

Ilgen (1990) in discussing "sick person syndrome" described the process by which an injured individual's self concept shifts from that of a healthy person to one who is sick. He goes on to state that "there is little research on the way in which it develops, its likely impact on the person returning to work, or the effect that returning to work with less capacity to perform certain functions than before the disability has on a person" (p.279).

Gottlieb (1985) provides a dramatic example of how an individual may become re-defined as a disabled person as a result of loss of mobility. Our findings are similar: for example the process of litigation requires intensive assessment. It totally focuses upon the disability, severely restricts the time utilization of the individual and disrupts the balance of activities that had been established prior to the injury. As one client described it, "I'm always running to the physio, the lawyer or the doctor".

Are professionals contributing to the "sick person syndrome" or perhaps even creating it?

What does all of this tell us about employment prospects for the disabled members of our community?

A review of the literature has shown that greater levels of skill are going to be required, along with team work, and multiple skills. Good workers at all levels will be in short supply. Economic imperatives will drive the system, suggesting that the work place will be more accepting of members of minority groups at a time when technological advancement is making it possible for work to be completed efficiently despite physical limitations and the workers location.

What clients have to tell us about job loss as a result of health problems or injury has important implications for the management of working environments for disabled and non disabled workers alike. Retraining is likely to become increasingly viable as the supply of skilled workers from other sources declines. With advances in electronic and computer technology, working from home is becoming an increasingly viable option for both injured and able bodied workers. The clients in this small sample wanted to continue to work in some capacity. Therefore, the problem that we now must address is how to assist disabled clients to maintain existing skill levels, transfer existing skills to other sectors, or upgrade their skills?

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TABLE 1
Demographic Data for Male & Female Clients with Orthopedic/Soft Tissue Injuries Referred to OPAU 1985-1990
(N = 53)

	Males (N = 26)		Females (N = 27)	
Mean Age (years) Total=35.1	33.6		36.6	
Marital Status				
Never Married	8		4	
Married	11		19	
No longer married	7		4	
Type of Injury				
U/L Upper Spine	13		23	
L/L Lower Spine	13		4	
Years since injury	3.4		3.7	
Educational Level				
Grade School	3		2	
High School	14		9	
Post Secondary	9		16	
Occupational Level	**Before Injury**	**After Injury**	**Before Injury**	**After Injury**
Professional	0	0	6	2
Skilled	11	5	10	3
Clerical	1	0	3	3
Semi-skilled	10	8	8	7
Student	4	4	0	0
Unemployed	0	9	0	12

TABLE 2

Life Roles Inventory

Values Scale: Mean Score Comparison

Title	Males (N=26) μ	$\overline{X}$	σ	Z	P	Females (N=27) μ	$\overline{X}$	σ	Z	P
Ability Utilization	16.69	17.19	2.27	-1.12		17.17	17.29	2.10	-0.30	
Achievement	16.76	17.19	2.20	-1.00		17.17	17.37	2.09	-0.50	
Advancement	15.08	15.42	3.19	-0.54		14.44	15.18	3.32	-1.16	
Aesthetics	13.31	14.11	3.39	-1.20		13.75	14.25	3.42	-0.76	
Altruism	14.95	15.07	3.09	-0.20		16.49	16.40	2.80	0.17	
Authority	14.61	14.00	2.87	1.08		14.51	15.25	2.86	-1.34	
Autonomy	15.79	15.46	2.50	0.67		16.37	16.38	2.39	-0.02	
Creativity	14.89	14.19	3.10	1.15		14.82	13.63	3.13	1.98	.024
Economics	16.31	17.07	2.63	-1.47		16.25	17.51	2.88	-2.27	.012
Life Style	14.09	14.57	2.72	-0.90		14.45	15.29	2.60	-1.68	
Personal Develop.	17.13	17.38	2.12	-0.60		18.02	18.18	1.80	-0.46	
Physical Activity	14.18	15.57	3.14	-2.26	.012	13.97	15.44	3.17	-2.41	.008
Prestige	15.34	15.34	2.89	0.00		15.79	15.48	2.78	0.58	
Risk	10.34	9.96	3.40	0.57		9.47	10.85	3.14	-2.28	.011
Social Interaction	12.65	13.53	2.92	-1.54		13.82	13.51	2.90	0.56	
Social Relations	15.44	16.84	2.78	-2.57	.005	16.93	17.11	2.41	-0.39	
Variety	13.06	13.76	2.99	-1.19		13.96	14.18	2.89	-0.40	
Working Conditions	13.75	14.96	3.26	-1.89		14.91	14.59	3.14	0.53	
Cultural Identity	12.76	12.42	3.14	0.55		13.48	13.44	3.24	0.06	
Physical Prowess	9.49	11.42	3.50	-2.81	.002	8.51	12.03	3.01	-6.08	.000

Salience Scales: Mean Score Comparison

Title	μ	$\overline{X}$	σ	Z	P	μ	$\overline{X}$	σ	Z	P
Participation										
Studying	23.60	21.57	7.29	1.42		29.14	21.44	7.36	5.44	.000
Working	29.19	24.34	5.81	4.26	.000	29.60	27.11	5.88	2.20	.014
Community	18.19	15.53	7.36	1.84		19.06	18.81	7.60	0.17	
Home/Family	26.88	27.73	6.27	-0.69		29.38	31.18	6.15	-1.52	
Leisure	26.38	25.15	6.58	0.95		27.11	25.44	6.17	1.41	
Commitment										
Studying	25.26	26.26	7.97	-0.64		26.29	24.88	7.79	0.94	
Working	33.82	32.53	5.53	1.19		34.30	32.96	5.17	1.35	
Community	22.04	20.46	8.26	0.98		23.53	22.85	8.08	0.44	
Home/Family	34.45	34.88	6.34	-0.35		36.02	36.37	5.53	-0.33	
Leisure	28.16	27.80	7.31	0.25		29.20	27.88	6.73	1.02	
Role Value										
Studying	34.34	34.34	10.46	0.00		34.85	31.51	10.33	1.68	
Working	43.95	40.19	7.88	2.43	.008	44.31	38.14	7.63	4.20	.000
Community	30.58	25.96	11.30	2.08	.019	31.92	29.44	11.12	1.16	
Home/Family	44.80	45.00	8.26	-0.12		46.55	44.51	7.73	1.37	
Leisure	39.42	36.53	9.41	1.57		40.39	35.88	8.81	2.66	.004